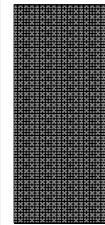


ELECTRONIC RECORDS MANAGEMENT

SESSION 5 OF 7 ON RECORDS MANAGEMENT



PRESENTER(S)

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Records Analyst

(Records Retention Schedules and Imaging – State Agencies)

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Records Analyst

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ADDITIONAL CONTRIBUTIONS TO THIS TRAINING

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National Archives and Records Administration (NARA)

(From presentation to NAGARA - Indianapolis, given on
July 11, 2013)

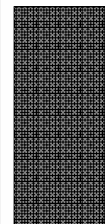
GENERAL GUIDANCE FOR ON-LINE SESSIONS

1. Please remember that while you are in the on-line classroom, all other participants **can hear everything** you say (even in the background), and **can see everything** you write on the whiteboard.
2. I will be muting ALL participants to help with sound distortion.
3. Please make sure that all phones are muted during the sessions. **Press *6 and your phone will be muted.**
4. Feel free to submit notes during session for discussion. If you would like to **send a note / comment**, please **send to "all"** so that everyone can see the question and then hear the answer to that question.
5. Please raise your hand (by clicking on the icon top left) if you wish to speak
6. Take a vote: How many of you are participating in today's session with a group of co-workers?
7. If so, how many of you are there in your group? (Send # as a note)
- ***8. **At the end of the training, we will be taking questions.** Write down any questions you have during the session, and we will have an opportunity to ask them at the end.***

ALL RECORDS MANAGEMENT IN ARIZONA IS GOVERNED BY ARIZONA REVISED STATUTES (ARS)

- In Arizona, **everything that we do** in Records Management is governed by Arizona Revised Statutes (ARS).
- The ARS that govern Records Management are:
 § 41-151.14 – §41-151.19
 and
 Portions of §39-101 – §39-128
- The purpose of this training today is to discuss the management of electronic records.

ELECTRONIC RECORDS STATUTES



WHAT IS A "RECORD"

41-151.18. Definition of records

- **"records"** means all books, papers, maps, photographs or other documentary materials,
- **Regardless of physical form or characteristics,...**
- **Made or received by any governmental agency** in pursuance of law or in connection with the transaction of public business...
- **As evidence of the organization, functions, policies, decisions, procedures, operations or other activities of the government, or because of the informational and historical value of data contained in the record,**
- and includes records that are made confidential by statute.

ARIZONA ELECTRONIC TRANSACTIONS ACT

44-7041. Creation; retention; conversion of written records

- A. Each governmental agency **shall determine if, and the extent to which, the governmental agency will create and retain electronic records and convert written records to electronic records.**
Any governmental agency that is subject to the management, preservation, determination of value and disposition of records requirements prescribed in sections 41-151.12, 41-151.13, 41-151.14, 41-151.15, 41-151.16, 41-151.17, 41-151.18 and 41-151.19 and the permanent public records requirements prescribed in section 39-101 shall comply with those requirements.
- C. All governmental agencies shall comply with the policies that are established by the secretary of state pursuant to section 41-132 and that apply to the use of electronic signatures.

SCANNING RECORDS NEEDS PRE-APPROVAL

ARS 41-151.16(A)

Each agency of this state or any of its political subdivisions may implement a program for the production or reproduction by...digital imaging or other electronic media of records in its custody...and index such records for convenient reference.

The agency, before the institution of any such program of production or reproduction, shall obtain approval from the director of the types of records to be produced or reproduced and of the methods of production, reproduction and storage and the equipment which the agency proposes to use in connection with the production, reproduction and storage.

Approval pursuant to this subsection is necessary for digitizing programs but not for individual instances of digitization. On approval from the director, the source documents may be destroyed...

IMAGING REQUEST FORMS

Here is the link to the Imaging Request Forms:
<http://www.azlibrary.gov/records/forms.aspx>

Imaging and Microfilming Forms

Request for Document Imaging of Public Records

Used for scanning paper into any format

Request for Microfilming of Permanent Public Records

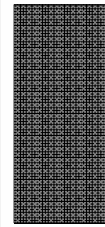
Used for filming paper onto Microfilm or Use of an Archive Writer

Certificate of Compliance

Completed by Public Body and their Microfilm Vendor to certify microfilm records are created, processed and stored according the the *AZ Standards for Permanent Records*

UNDERSTANDING ELECTRONIC RECORDS

Why **RM Needs to Be at the Table with IT** for
Records / Data System Design and Purchases.



ELECTRONIC RECORDS IN YOUR OFFICE

What types of e-records do you have in your office?

Word, Excel, Access, PowerPoint, etc.

E-mail, Texts and Voicemails

Digital Photos, Maps, and Videos

Databases – HR, Finance, etc.

Web pages

Social Media

GIS

Cloud-based storage

THE GOOD, THE BAD, AND THE ELECTRONIC

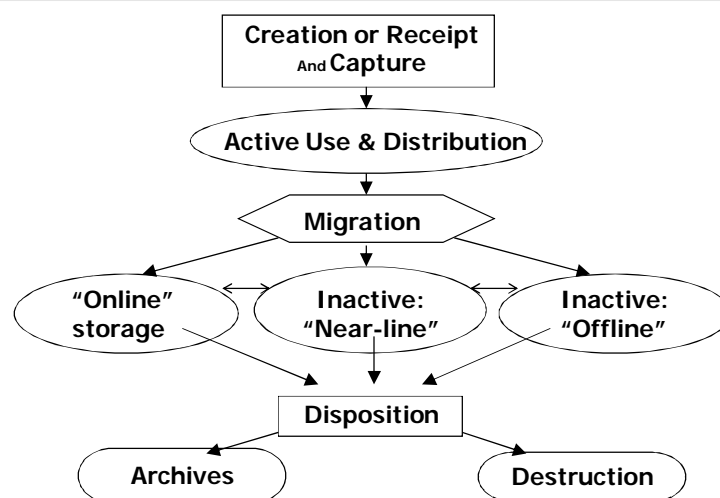
The Good:

- Take up little space
- Easily searched and quickly retrieved
- Easy to attach files to an e-mail
- Keep audio, video and text together

The Bad:

- E-mail viruses
- Computer hackers and crashes
- Un-patrolled wireless networks
- Forwarded email / text messages
- Laptops are easy to lose and easily stolen

ELECTRONIC RECORDS LIFECYCLE



Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

CHARACTERISTICS OF ELECTRONIC RECORDS

1. Content

- what a record says; it is the data or information contained in the record

2. Context

- refers to what makes the record meaningful. It tells why a record was created and its relationship to other records

3. Structure

- refers to the way in which information is organized, which greatly affects our ability to understand it

4. Behavior

- is the ability to perform queries, manipulate data, and display the records. Behavior may include:
 - Embedded sound or video files
 - Animation
 - Response to queries or other manipulation

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

FUNCTIONAL REQUIREMENTS FOR ELECTRONIC SYSTEMS

- A manual or automated system in which **records are collected, organized, and categorized to facilitate their preservation, retrieval, use, and disposition**
- Records management systems must be able to:
 - 1. Declare a record
 - 2. Capture records
 - 3. Maintain and use records
 - 4. Facilitate records transfer
 - 5. Facilitate records disposal

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

1. DECLARE A RECORD

- Assign **unique identifiers to records** and their associated metadata. (Think of indexing electronic records)
- Collect as much metadata automatically as possible, and reliably link metadata to the records

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

2. CAPTURE RECORDS

- Allow import of records from other sources
- Create a link from the electronic recordkeeping system to a record in its native system

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3. MAINTAIN AND USE RECORDS

- **Define and implement** organization-specific file structure linked to records retention schedules
- Define, manage, and control levels of authorized user privileges (Who can access what and how much)
- **Link** records to other records
- **Import information** from other sources
- Prevent unauthorized modification or deletion of records and metadata
- **Provide audit trails** of all addition, update, deletion, and retrieval activity

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

3. MAINTAIN AND USE RECORDS - CONTINUED

- Maintain **appropriate backup copies** of records and provide recovery procedures
- Maintain the **integrity and security** of redacted records
- Records can be read and accurately interpreted throughout their useful life in the system
- **Provide search and retrieval features** and options to meet organizational requirements
- **Print and / or view all records** and system control information

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

4. FINAL DISPOSITION: TRANSFER OF PERMANENT RECORDS

- **Identify permanent records** eligible to be transferred to State Archives, based on records retention schedules and disposition instructions
- **Export records and metadata** (i.e., *copy and subsequently remove them from the system*) in an acceptable format for historical preservation
- Maintain Electronic Permanent Records Yourself, per *AZ Perm Standards* or Transfer to State Archives
- Enable a **record to be kept of all records transfers**, providing certifiable proof of transfer and chain of custody (*Agreement to Transfer Records to State Archives Form*)

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

5. FINAL DISPOSITION: DESTRUCTION OF NON-PERMANENT RECORDS

- **Identify non-Permanent records eligible to be destroyed**, based on records retention schedules and disposition instructions
- **Delete records** in such a manner that they cannot be physically reconstructed or otherwise retrieved
- Enable a record to be kept of all records destructions, providing certifiable proof of destruction (*Report of Records Destruction Form*)

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

DATA MIGRATION

- The preservation of record integrity requires that **the record be authentic, reliable, and complete**, and possess sufficient context
- Electronic records of continuing value need to be **migrated through successive upgrades of hardware and software**
- **Data Migration** is a set of organized tasks designed to achieve periodic transfer of digital materials from one hardware / software configuration to another

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

WHY MIGRATE?

- Electronic systems and software **change regularly**
- Documents must be copied to new media while they **are still readable**
- However, keep in mind:
 - The obsolescence as well as the physical lifetime of the new media and new formats (PDF A)
 - The fact that **copying may change data format, compress, encrypt**, etc.
 - The fact that copy cycles may have to be quite short to be safe, **requiring a firm, funded commitment**

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

CHALLENGES OF DATA MIGRATION

- Not all Electronic systems / software **interact with others systems** (Do you have silos of “dead” data?)
- Do records exist in a single medium or as a multimedia record?
- Some records comprise a number of elements
- Relying on metadata embedded in computer software and hardware to **link content and structure to context**
- Preserving intellectual-level connections and control mechanisms among the various elements
- Typical IT Cycle: Upgrading hardware and software every **18 months to three years**

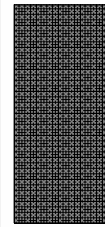
Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

DATA MIGRATION BEST PRACTICES

- **Move data** from current media to fresh media about **every one to five years**
- Move data from obsolete media as necessary
- **Convert data** from obsolete software to current software as needed
- **Convert data** from obsolete operating system to current system as needed
- Have IT staff perform the migration
- **Verify the success of the migration** with IT by comparing pre and post-migration records (content)

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

OPTIONS FOR MANAGING ELECTRONIC RECORDS



STORING ELECTRONIC RECORDS

Electronic records should be **stored in an approved record-keeping system** that must do the following:

- Logically relate group of records in accordance with your office's file plan
- Ensure that the records are accessible to **authorized persons** throughout the life of the records
- **Support retention** of the records for **as long as required** (may require migration or other solutions = Continued Costs)
- Enable transfer to the State Archives of Permanent records
- Facilitate destruction of records automatically based upon an approved Records Retention Schedule (**Retention Module**)

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

CONFIDENTIALITY AND LEGAL ADMISSIBILITY

Confidential Records:

- Protect it – deleted is not erased
- Must be able to **separate Confidential from non-confidential** material if requested
- Think before putting everything on your website / in an email

Legal Admissibility:

- You need to ensure e-records are
 - reliable or trustworthy
 - **accurate**
 - **authentic**
 - complete
- Created during the regular course of business
- Follow established procedures
- **Audit trails and Chain of custody**
- Timeliness

ALPHABET SOUP OF OPTIONS

- **ECF** —Electronic Case Filing
- **EIS** —Electronic Information System
- **EDMS** —Electronic Document Management System
- **ERMS** —Electronic Record Management System
- **ECM** —Enterprise Content Management

What you want to do with your Electronic Records / Data / Information will impact which option you choose

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

ELECTRONIC CASE FILING – ECF

- **Electronic Case Filing (ECF)** occurs when the documents themselves are filed electronically by scanning paper, or through the maintenance of documents created and transmitted electronically.
- The case file containing the stream of documents accumulated about a particular transaction or project is the primary repository of all information about that transaction.
- **ECF Tracks only One-type of records**

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

ELECTRONIC INFORMATION SYSTEMS – EIS (DATABASES)

- An electronic information system (EIS) is an **automated system** that contains and provides access to records and other information
- It captures (creates) information, but unlike an electronic records management system, it does **not manage information throughout the lifecycle**
- **Databases** are most common types of EIS

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS - EDMS

- An **electronic document management system (EDMS)** is a set of software / hardware applications that provides for the management of documents
- Among its capabilities:
 - **Supports** creating, editing, and reviewing work in progress
 - **Manages** creation, storage, and control of documents during daily use
 - Works well with **mixed electronic record formats**
 - Provides for **sharing of files and information**
- Usually requires **purchase of a separate Retention Module** to automatically apply retention and disposition to its records / data / information in EDMS
- **Most popular solution for managing all types of electronic records** – from a RM point of view

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

ELECTRONIC RECORDS MANAGEMENT SYSTEMS – ERMS

- **Electronic Records Management System (ERMS)** is a system in which records, regardless of format, are collected, organized, and categorized to facilitate their preservation, retrieval, use, and disposition
- An ERMS: allows us to establish and manage:
 - Retention and disposition rules
 - Security and access controls
 - Digital rights management
 - Information sharing
 - Findability
 - Provides for compliance and disposition

****Major Difference from EMDS = Contains unchanged, redundant information (does not allow records to be updated)**

Major use – eDiscovery since it preserves all versions of information.

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

ENTERPRISE CONTENT MANAGEMENT – ECM (IT SOLUTION TO MANAGEMENT E-CONTENT)

- **Enterprise Content Management (ECM)** is the document management term which describes the technologies used by organizations to capture, manage, store, and control enterprise-wide content, including documents, images, e-mail messages, instant messages, video, and more
- **NOT usually for RM purposes**
- ECM software is used to assist in content control associated with business process
- Includes web content management, search capabilities, collaboration, digital asset management (DAM), work-flow management, and document capture and scanning

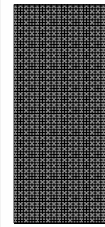
Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

COMPARISONS

- EIS is a **database** and **does not have records management** built in
- EDMS deals with electronic records but **does not always include records retention and disposition module / tools**
- ERMS deals with all formats of records and is designed with records management built in (Think about use for **e-Discovery as a tool for compliance**)
- ECM captures, manages, stores, and controls enterprise-wide content throughout the records lifecycle. Tool for IT Management of all types of information on its systems

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

PROBLEM AREAS BETWEEN ELECTRONIC RECORDS AND RECORDS MANAGEMENT



PROBLEM AREAS FOR E-RECORDS

- **Differences to watch out for between It and RM practices:**
 - E-Records Retention & Formats
 - Data Warehouses / Archives vs. Back-ups
 - Databases

- Social Networking (RM Session 6)
- E-mail (RM Session 7)

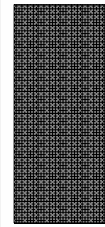
PAPER VS PLASTIC : E-RECORDS RETENTION

- *A.R.S. 41-151.18* – no difference between paper records or electronic records (including scanned or “born digital”)
- Retention Schedules are legal documents that will stand up in court
- Retention Schedules – list the records that are created or received by public bodies – **regardless of whether created on paper or electronic**
- Retention Schedules – list the retention period for these records
- Retention period for records are same for paper or electronic. When you destroy paper records you need to destroy the electronic ones, as well
- **Copies of records are not records – as long as they are truly a copy**

ARCHIVES / DATA WAREHOUSES VS. BACKUPS

- **Backups**
 - **Short-term retention** for disaster recovery
 - Usually **copies of information** that exists elsewhere
 - Copies of information are not records.
 - Risks: The longer backups are kept, the more risk they contain unique records and not copies
- **Archives / Data Warehouses**
 - Usually longer-term retention
 - Often contain unique information not found anywhere else (off-line records)
 - Archives / Warehouses ARE records
 - Implications: **Archives will need to be searched as part of Public Records Requests, Audits, Government Investigations, Litigation**

E-RECORDS CHALLENGES: WEBSITES AND CLOUDS



WHO IS MANAGING ALL THAT STUFF?

Questions to think about:

- What is the difference between **data and records**?
- Is it **IT's "responsibility"** to provide Records Management service to their customers?
- Is IT in the **best position to "manage"** electronic records?
- Is IT the creator of the content / record?
- Or, is IT the "post-er" of the content / record?
- Why do these questions matter?

RM QUESTIONS FOR WEBSITE MANAGEMENT

Important RM Concept for all forms of Electronic Communication:

- Is **Content** in Communication a **Copy**?
- Is that content (of original not copy) **being retained and managed** (from RM perspective) elsewhere?
- Is **Content Unique** information?
- Is Unique Content **being retained and managed** (from RM perspective)?

RM GUIDANCE FOR WEBSITE MANAGEMENT

- The **Creator of any content** being posted to website(s) needs to be **responsible for the proper retention** of the content they created
- **Do not post any unique or original content** to website(s)
- **Post only copies** of information being managed by a specific person responsible for its retention in another more secure and controllable location / system
- **Consider logging** (often a capability built into web software) when information is posted to website(s) and when that information is removed
 - Why? Can help rebuild information on website(s) if ever needed
- You **DO NOT need** to make and retain **screenshots** of website(s) to properly manage them
- Web crawls are **not proper RM tools** for website(s)

WHAT IS THE CLOUD? WHAT'S IN THE CLOUD?

“Cloud” – IT outsourcing some, most or all of its responsibilities to a 3rd Party vendor.

“Cloud” – You know your electronic records / data are with the vendor, but you don't know the actual physical location of the Servers holding your data.

- Storage Space
- Shared Data
- Allows User(s) to access and use shared data and computing services via the internet or VPN
- Allows access to data from almost any computer
- E-mail
- Social Media

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

TYPES OF CLOUDS

Private Cloud

- The computing infrastructure is dedicated to a particular organization and not shared with other organizations.

Public Cloud

- The customer has no visibility and control over where the computing infrastructure is hosted.

Community Cloud

- involves sharing of computing infrastructure in between organizations of the same community.

Hybrid Cloud

- The usage of both private and public clouds together is called hybrid cloud.

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

CLOUD MODELS

Software as a Service (SaaS) -- Software only hosted

- sometimes referred to as "**on-demand software**" supplied "Application-Service-Providers" (ASPs)

Platform as a Service (PaaS) -- combination of “Yours” and “Ours”

- PaaS offerings **facilitate the deployment of applications without the cost and complexity of buying and managing the underlying hardware and software** and provisioning hosting capabilities

Infrastructure as a Service (IaaS) -- Almost all “Yours”

- The service provider owns the equipment and is responsible for housing, running and maintaining it
- The client typically pays on a per-use basis

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

BENEFITS OF THE CLOUD

- Cost savings with "**pay-as-you go**"
- **Scalability** in response to needed IT capacity
- **Accessibility** of services often **from any networked device**
- Collaboration capabilities with access to shared applications and records
- Capability to **outsource large computing needs** and non-critical applications
- Develop and implement **new services as needed**

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

MAJOR LIMITATIONS AND RISKS OF THE CLOUD

What If The US Government Seizes Your Cloud's Servers?

- Think it doesn't happen? It does: **Third Party Legal Issue** - "Innocent Data seized along with "guilty" data because both on the same server.
- Do you know who else and what other data is on your cloud's servers?

Who Owns Data In The Cloud And How Easy Is It To Get Your Data?

- ***Electronic Communications Privacy Act (ECPA)*** – This Act distinguishes between communications (emails newer than 180 days , texts, etc.) and stored data (cloud storage, emails older than 180 days)

Do You Have A Guaranteed Exit Strategy?

- Read the User Agreements – If stored data is lost for any reason, its gone forever and vendors cannot be held liable for data losses.

Some content by Steve Adams (Presentation to NAGARA - Indianapolis, given on July 11, 2013)

OTHER LIMITATIONS AND RISKS OF THE CLOUD

- Security and privacy of information is **maintained in a shared environment** and is **located outside of organization**
- **Control** of data / infrastructure does not reside within the organization
- Very **limited RM capabilities** over records in cloud
- Limited interfaces with organization systems
- Guaranteed availability and performance of services
- Maintaining data integrity throughout life of the records
- Customization limited
- Lack of control over software upgrades

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

HOW RECORDS MANAGEMENT CAN HELP WITH CLOUDS

- **Records manager is involved** in the planning, development, deployment, and use of cloud computing solutions
- Define **which copy of records will be declared** as the official record or merely a copy
- Determine **if records in a cloud environment are covered under an existing records retention schedule**
- Determine how records will be captured, managed, retained, and disposed of, or transferred to State Archives

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

WAYS RM CAN HELP CLOUDS - CONTINUED

- Conduct a **records analysis** for records in a cloud environment
- Develop and submit **records schedules** for unscheduled records in a cloud environment
- Periodically **test transfers of records** to other environments
- Determine **how data will be migrated** to new formats so that records are accessible throughout their life cycles

Steve Adams (From presentation to NAGARA - Indianapolis, given on July 11, 2013)

GOT QUESTIONS?



Any Questions?

HELPFUL CONTACTS

Records Management Center (LAPR):
<http://www.azlibrary.gov/records/>
 Phone: 602-926-3815
records@azlibrary.gov

Karen Gray
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Dr. Melanie Sturgeon:
msturgeon@azlibrary.gov
 Phone: 602-926-3720
 Toll Free: 1-800-228-4710 (Arizona only)

State Ombudsman's Office
<http://www.azleg.gov/ombudsman/default.asp>

State Attorney General – Public Records Publication
<https://www.azag.gov/sites/default/files/sites/all/docs/agency-handbook/ch06.pdf>

AIIM – Global Community of Information Professionals
<http://www.aiim.org/>

ARMA International:
<http://www.arma.org/>

Institute of Certified Records Managers (ICRM):
<http://www.icrm.org/>

National Archives and Records Management (NARA):
<http://www.archives.gov/records-mgmt/>

National Association of Government Archivists and Records Administrators (NAGARA):
<http://www.nagara.org/index.cfm>